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(21)Application number : **07-030085** (71)Applicant : **MITSUBISHI MATERIALS CORP**
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(54) CUTTING TOOL MADE OF CUBIC SYSTEM BORON NITRIDE BASE SUPERHIGH PRESSURE SINTERED MATERIAL HAVING HIGH STRENGTH AND HIGH TOUGHNESS

(57)Abstract:

PURPOSE: To provide a cutting tool made of a high-strength and highly tough CBN base superhigh pressure sintered material in which the proportion of CBN grain is specified.

CONSTITUTION: A cutting tool is made of a CBN base superhigh pressure sintered material which is made up of a combination phase having a composition composed of 7 to 12% reaction productive phase where the proportion of CBN grain as a hard dispersed phase is 45 to 70vol.%, and the remainder is composed of 20 to 40vol.% of Al₂O₃, AlB₂, AlN and TiB, and TiC and inevitable impurity, the remainder, and which forms a structure of skeleton structure formed of CBN grains and Al₂O₃ grains.

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